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#### ABSTRACT

The formative evaluation of the Self-Directed Literacy Distance Learning for Developmental Disabilities Workers project is intended to assess the effectiveness of the course materials, operations process, and implementation. Designed to provide 96 hours of workplace literacy training to 426 developmental disabilities workers in about 80 state-operated workplaces, the project is a partnership between the Center for Advanced Study of Education and the Civil Service Employees Association, Inc., with the New York State Office of Mental Retardation and Developmental Disabilities. Observations and interviews would be conducted to evaluate effectiveness of the project and components, including samples of e-mail communications conducted with students. Interviews of the project director, educational technology specialist, coordinators, and project partners would be conducted during the initial stage of the project and in the fall. This formative evaluation consists of a multi-site study. Critical factors would be identified and evaluated by sample site and across sample sites. Comparison data would be collected to evaluate whether the access and use of the computer as an additional option made a difference in student attitudes and achievement. The two of the seven Developmental Disabilities Service Offices without computer access would be the control group. A preliminary observation criteria list with sample criteria for the physical and human environments has been compiled; interview questions have been developed for instructors and participants. (YLB)



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## Self-Directed Workplace Literacy Distance Learning for Developmental Disabilties Workers: External Formative Evaluation Design

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### FORMATIVE EVALUATION DESIGN

Self-Directed Workplace Literacy Distance Learning for Developmental Disabilities Workers

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#### Introduction

The primary goal of the OMRDD/REACH/CUNY Distance Learning Project is to provide a model workplace literacy program to help direct care workers in state-operated developmental disabilities facilities adjust to a changing workplace. The project will develop a distance learning curriculum model for literacy training incorporating a variety of print and educational technology options. This study represents an initial effort in determining the efficacy of distance learning of workplace literacy skills.

Overall goals to be achieved by the program:

- To implement a workplace literacy partnership between a labor organization and an institution of higher education
- To demonstrate, evaluate and promote the institutionalization of a workplace literacy training model that combines print, videotapes, electronic mail, computer-assisted-learning, teleconferencing, and self-directed learning methods for direct care workers in the field of developmental disabilities.

The project is designed to provide 96 hours of workplace literacy training to 426 developmental disabilities workers in approximately 80 different workplaces (approximately 77 community residences and 3 developmental centers) in seven different regions in New York State. Each participant will receive workplace literacy instruction and educational counseling for 96 hours over a six month usually in four one hour sessions per week 100% release time.



## **Purpose Of the Formative Evaluation**

The formative evaluation study is intended to serve the following general purposes:

- (1) Provide timely feedback to CASE/CUNY project staff regarding the effectiveness of the course materials and to identify necessary revisions.
- (2) Evaluate curriculum objectives to determine relevance to project goals.
- (3) Review curriculum objectives, evaluate six assessment instruments, and student materials including videotapes to correlation to curriculum objectives.
- (4) Review draft of the Individualized Learning Plan used with participants in relation to program's objectives.
- (5) Evaluate effectiveness of the operations process including the recruitment process and conduct of advisory committee to project's objectives.
- (7) Provide evaluation on the implementation of distance learning educational technology including the facilitation by instructors, staff development, and educational counseling components.
- (8) Evaluate the implementation of the teleconferencing component and its effectiveness in workplace literacy instruction.

This evaluation is designed to determine the impact of incorporating a variety of instructional modes on the development of literacy skills, as well as the progress teachers and students have made in using distance learning for instruction.



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#### **Procedures**

Both observations and interviews will be conducted to evaluate the effectiveness of the overall project and components including samples of e-mail communications conducted with students. Interviews of the project director, educational technology specialist, coordinators, and project partners from OMRDD, CSEA< and GOER will be conducted during the initial stage of the project and in the Fall. A total of twelve days are allocated for site visits to selected work sites during mid-Summer and mid-Fall.

This formative evaluation consists of a multi-site study. Critical factors will be identified and evaluated by sample site and across sample sites. One critical factor identified is the use of computers for instructional purposes. Five of the seven DDSOs have full access to computers for instruction. This constitutes an additional variable for instructional modes not available across all sites. Comparison data will be collected to evaluate whether the access and use of the computer as an additional option made a difference in student attitudes and achievement. The two DDSOs without computer access will become the control group.

Implementation issues will be evaluated according to the five phases:

- 1. Planning
- 2. Equipment Selection, Preparation, and Installation
- 3. Preliminary Training and Ongoing Support
- 4. Collection and Analysis of Qualitative Data
- 5. Preparation of transitional materials to assure continuation of the project's goals and benefits.

The instruments will focus both on the strengths and weaknesses of the program. They will include what participants liked and disliked, on procedures that ran smoothly and on procedures that were difficult or inefficient.

Where relevant, the evaluation will include a comparison across methods. For example, the use of information from the interviews and from the electronic logs will be correlated to assess the patterns of use for computer-assisted instruction. It is important that the project instructors save and maintain their e-mail files that record student/instructor communication. These files will be reviewed by the external examiner for the purpose of the formative evaluation.



#### **On-site Observations**

The initial site visits in each of the seven DDSOs will be conducted at the beginning of August, 1995. The second observation will be conducted at the end of October, 1995. The primary purpose of the site visits is to observe the instructors and learners involvement in the distance learning activities, evaluate the efficiency and effectiveness of educational technology operations.

The proposed schedule and an observation guide will be used primarily to gather comparable data across sites. If in each site or with each subject similar data is collected some statements can be made concerning the distribution of facts that are gathered.

The following provides a preliminary Observation Criteria List for the first site visit. The Observation Criteria List for the second site visit will be compiled based upon the outcomes of the initial visit.

Observational Criteria is based upon obtaining field notes concerning the physical environment and human environment factors. Sample criteria includes:

#### **Physical Environment**

What is the general appearance of the facility?

How is the space arranged as a whole?

Are the computers and/or equipment easily accessible?

Are study areas defined?

#### **Human Environment**

What are the various titles of the people who work in the facility?

What are the jobs of the various specialists?

How can you tell what positions people hold?



What are the specific qualifications for various staff positions?

What training do staff members receive before assuming their responsibilities?

What reasons do staff members give for working in the school?

What is the staff definition of their involvement?

How are students seen by the staff?

What are the students' perspectives on training and work?

What are they students' perceptions as to why they think they are in the program?

#### **Analyzing Observational Data**

This data will be prepared in a format to guide recommended module revisions and preferred implementation strategies. Procedures will be developed for data analysis including techniques to code, chart, and interpret observations.

### **Interview Questions**

The following questions will be used in conducting the interviews of the instructors and participants,

#### **Instructors**

How frequently were the on-line services used by the students?

Did the frequent communication with trainers through e-mail make a difference in the performance of students?

How did the limited number of terminals available on the network effect the process?

Was more equipment acquired as a result of this project?

Have you observed a difference in the incident reports submitted?



How have the Direct Care Workers demonstrated a better understanding of the regulations?

Did you find your comments via e-mail different from your normal communications with students?

Is the sequence of skills and knowledge effective for student learning?

Does the curriculum achieve its objectives?

#### **Participants**

Did you find the use of choices empowering?

Which technology or learning materials did you prefer to use? Why?

How often did you experience any problems in accessing e-mail? What types of problems occurred?

How long did you typically have to wait to make contact with the computer to which you were sending an e-mail message?

Did you ever need to contact your instructor, but was unable to do so? What was the reason? How did this affect your attitude? How did this effect the success of your assignment?

What type of feedback from your instructor did you find most helpful?

Did you ever consult with your instructor when writing your Individualized Learning Plan?

Did you find the core instruction you received helpful in designing your ILP?

Did the knowledge of the electronic monitoring of your e-mail influence what you wrote? If yes, why and how?



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How did receiving instruction at your place of employment impact your attendance and your learning?

What types of assistance did you receive via telephone was the most helpful from your instructor during the first weeks of training?

How often did you speak to your CSFA Advisor by phone? For what purpose?

#### **Instructional Materials**

Did the orientation videotape prepare you effectively for the lesson?

Was the workplace literacy handbook easy to read?

Were the instructions clear and easy to follow?

If you were asked to write the handbook, what would you change or add? Why?

How were the video simulations similar to your actual work experience? If not, what would you change or add?

How has the training program contributed to the effectiveness of your work?

What component of the training sessions worked best?

What aspects did not seem effective?

How would you change the approach in the future?

What support strategies has the administration put in place to support meaningful use of technology?

Which learning options did you chose to use the most? Why?

How often did you need guidance in choosing your learning path?

Did you have access to a terminal for e-mail when you needed it?



#### For sites with computers

Did having one computer at your site effect in any way how often you used it for writing exercises?

Did you observe a difference in your writing when working with the word processor? If yes, describe the difference in your writing ability.

Did you use software? If yes, what type of software did you find most useful?

Was the software easy to use or did you need assistance?

Are your incident reports more complete in description and more concise as a result of this training? If yes, what made the difference?

Can you better understand the regulations related to your job?

Did your instructor meet your expectations?

In which ways was your instructor most helpful?

#### **ON-GOING EVALUATION**

Review and evaluation of curriculum materials, assessment instruments, and individualized education plans as per schedule provided by the project guidelines.



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